

## REMARKS

The application includes claims 1, 4, 6-19, and 22-25 prior to entering this amendment.

The examiner objects to claims 4, 6, and 14 for informalities.

The examiner rejected claim 25 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The examiner rejected claims 13, 14, and 19 under 35 U.S.C. § 102(e) as being anticipated by Marcos Alba (U.S. patent publication 2006/0292980).

The examiner rejected claims 13 and 17-19 under 35 U.S.C. § 102(b) as being anticipated by Yang (U.S. patent 5,881,365).

The examiner rejected claims 1, 7, 9-12, 19, 22, and 23 under 35 U.S.C. § 103(a) over Johnson et al. (U.S. patent 6,782,239) in view of Csicsatka et al. (U.S. patent publication 2003/0158737).

The examiner rejected claim 4 under 35 U.S.C. § 103(a) over Johnson in view of Csicsatka and Erben et al. (U.S. patent 5,349,699).

The examiner rejected claims 6-8 and 24 under 35 U.S.C. § 103(a) over Johnson in view of Csicsatka and Anderson (U.S. patent 5,721,783).

The examiner rejected claim 14 under 35 U.S.C. § 103(a) over Yang in view of Lee (U.S. patent 6,374,177).

The examiner rejected claim 15 under 35 U.S.C. § 103(a) over Yang in view of Johnson and Csicsatka.

The examiner rejected claim 16 under 35 U.S.C. § 103(a) over Yang in view of Johnson, Csicsatka, and Anderson.

The examiner rejected claim 25 under 35 U.S.C. § 103(a) over Yang in view of Lee and Johnson.

The applicant amends claims 1, 7, 8, 13-17, 19, and 25, adds new claims 26-30, and cancels claim 18 without prejudice.

The application includes claims 1, 4, 6-17, 19, and 22-30 after entering this amendment.

The applicant does not add new matter and requests reconsideration.

### **Claim Objections**

The examiner objected to claims 4, 6, and 14 for informalities. The applicant notes that the “~~:~~” on line 2 of claim 4, line 2 of claim 6, and line 1 of claim 14 objected by the examiner was intended as a strike through marking of a colon submitted in an amendment filed immediately previous to the present amendment. The applicant does not amend the claims because he does not believe it is necessary since the strike through marking should have deleted the colon. If, however, the examiner disagrees with the applicant’s assessment, the applicant asks the examiner to correct the error through an examiner’s amendment.

### **Claim Rejections Under § 112**

The examiner rejected claim 25 under § 112, first paragraph, as failing to comply with the written description requirement. In the previously filed amendment, the phrase “specification.<sup>21</sup>” was intended to read “specification.”<sup>21</sup> the superscript number 21 referencing footnote 21. Footnote 21 indicated that support for claim 25 was found throughout the specification, e.g., in paragraphs 0022, 0027, and 0040. This obviates the examiner’s rejection for lack of written description.

### **Claim Rejections Under § 102**

#### Marcos Alba

The examiner rejected claims 13, 14, and 19 under § 102(e) over Marcos Alba. The applicant disagrees at least for the reasons that follow.

The examiner’s rejection is improper because Marcos Alba is based on an international application first published in English on 12/ 28/2006, which is after the 9/30/2003 filing date of the present application. The corresponding U.S. application serial number 10/491,796, was filed 10/4/2004, and is also unavailable as prior art under 35 U.S.C. § 102(e). For the sake of advancing prosecution, the applicant notes that the international application was published in Spanish on 4/10/2003 (WO/2003/030417) and hence may be available as a § 102(a) reference as of that date.

Even under § 102(a), however, Marcos Alba fails to show each of the elements recited in claims 13, 14, and 19. Claim 13 is directed to a *transceiver* where Marcos Alba discloses only a

master broadcast station (e.g., transmitter) and a receiver.<sup>1</sup> Neither of the stand-alone systems constitutes a *transceiver*, let alone a transceiver that, as further recited in amended claim 13, performs modulating operations *in response to receiving an external audio transmission including text data and an audio signal*. In Marcos, the transmitter receives its audio signal from an internal audio signal source 3, not an *external audio transmission*. Moreover, amended claim 13 further requires an RDS modulator *configured to generate a modulated text data signal modulated as a digital RDS signal using a digitized 57kHz subcarrier*.<sup>2</sup> Marcos Alba does not anywhere mention *using a digitized 57kHz subcarrier*.<sup>3</sup> Accordingly, amended claim 13 patentably defines over Marcos Alba.

Concerning dependent claim 14, the examiner alleged that Marcos Alba shows a *satellite audio receiver*, as recited. But Marcos Alba only shows a master broadcast station 60,<sup>4</sup> which station represents an audio transmitter, not an *audio receiver*, as claimed.<sup>5</sup> Indeed, Marcos Alba does not make reference to a satellite mode of broadcast.<sup>6</sup> The only reference to satellite operation is in Marcos Alba's paragraph [0158] which explains that a control center 45 connects to each broadcast station 60 through the Internet "or any other mean[s, such] as...satellite connexion." The control center sends channel and other configuration information to each broadcast station through this connection,<sup>7</sup> but just because the broadcast station may receive controls or other non-audio data by Internet or satellite does not make the broadcast station a *satellite audio receiver*. Hence, claim 14 defines patentably over Marcos Alba even separately of independent claim 13.

Concerning claim 19, Marcos Alba shows a master broadcast station<sup>8</sup> including, for example, a tower-type emitting antenna 6. This is clearly not a *handheld audio player*, as recited. The examiner alleged that encoder 2 is a processor configured to receive an audio signal and text data, but Marcos Alba does not describe this encoder receiving audio data, and such an operation

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<sup>1</sup> See Marcos Alba, paragraphs [0091-0092], and figures 3 and 4.

<sup>2</sup> Support for this feature is provided in applicant's specification, paragraph [0031].

<sup>3</sup> Marcos Alba, figure 3. Marcos Alba also fails to describe a converter that, subsequent to modulation, is available to convert the digitized RDS subcarrier back into an analog RDS subcarrier for compatibility with conventional RDS receivers.

<sup>4</sup> Marcos Alba, paragraph [0091].

<sup>5</sup> Broadcast station 60 does not receive audio from an external audio transmission, rather Marcos Alba's broadcast station contains its own audio signal source 3.

<sup>6</sup> Marcos Alba, figure 4.

<sup>7</sup> Marcos Alba, paragraph [0172].

<sup>8</sup> Marcos Alba, paragraph [0091].

would make redundant the summer (+). Moreover, Marcos Alba describes the encoder as being compliant with RDS requirements,<sup>9</sup> which would mean leaving any text data in a digital form compatible with decoding operations in conventional RDS receivers. Indeed, Marcos Alba further describes how in modulator 4 (which appears to add the main FM carrier) the “codified data” is modulated (e.g., on the main FM carrier) with the audio signal (e.g., presumably after the data has been put on an RDS subcarrier by encoder 2).<sup>10</sup> If, as Marcos Alba indicates, the text data is still “codified data” during the final modulation step, then nowhere has the text data been modulated, as recited, *to generate a modulated text data signal including speech encoding of the text data.* Accordingly, claim 19 defines patentably over Marcos Alba.

### Yang

The examiner rejected claims 13 and 17-19 under § 102(b) over by Yang. The applicant disagrees particularly as he has amended the claims and at least for the reasons that follow.

Regarding amended claim 13, Yang does not show a transceiver comprising an RDS modulator *configured to generate a modulated text data signal modulated as a digital RDS signal using a digitized 57kHz subcarrier.* Instead, Yang describes a digital voice paging base station 22 (Fig. 2)<sup>11</sup> in which, according to a first mode of operation, a “non-compressed I.D. signal” is outputted to an RDS encoder circuit 42.<sup>12</sup> This encoder circuit reformats the input I.D. signal according to standard RDS protocols and outputs an RDS encoded signal to an FM transmitter 46.<sup>13</sup> However, standard RDS protocols specify modulation on an analog RDS subcarrier for compatibility with conventional RDS receivers. There is no mention, in Yang, that the I.D. signal is modulated *using a digitized 57kHz subcarrier,* as recited.

Moreover, Yang's “I.D. signal” is not text data that, as further recited in claim 13, *is configured to provide ancillary information descriptive of the audio signal.* In Yang, a caller wishing to place a voice page first dials a telephone 30 with a telephone number specific to a particular pager, which call is connected to the station's computer 24 over a conventional

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<sup>9</sup> Marcos Alba, paragraph [0159].

<sup>10</sup> Id. Marcos Alba does not describe a separate subcarrier for the audio signal, which suggests that uses monophonic audio.

<sup>11</sup> Yang, column 5, line 65.

<sup>12</sup> Yang, column 6, lines 54-56.

<sup>13</sup> Yang, column 6, lines 64-67.

telephone network 26.<sup>14</sup> If the computer recognizes this telephone number of the recipient pager, it stores the number as the I.D. number and prompts the caller to begin speaking the voice message.<sup>15</sup> Hence Yang's ID signal only identifies the intended recipient and is not, as recited, *descriptive of the audio signal* being sent to that recipient. It will be noted, moreover, that there is no reason for Yang to transmit text data in RDS modulated format because the base station 22 is transmitting to a specially configured pager, which pager does not constitute a conventional RDS-enabled receiver.<sup>16</sup> For at least these reasons, then, Yang fails to anticipate claim 13. Claims 17-18, which depend from claim 13, similarly are not anticipated by Yang.

Regarding claim 19, Yang does not show the recited *handheld audio player*, but instead shows a paging base station that includes, for example, a telephone 30 interconnected with a computer 24 over a conventional telephone network 26. As noted above with respect to claim 13, the I.D. number in Yang serves to identify a recipient pager and is not, as recited, *text data providing ancillary information descriptive of the audio signal from the storage device*. Moreover, even if one equates Yang's I.D. number with text data, such text data is not modulated, as recited, *to generate a modulated text data signal including speech encoding of the text data*.<sup>17</sup> Accordingly, claim 19 patentably defines over Yang.

### Claim Rejections Under § 103

#### Johnson and Csicsatka

The examiner rejected claims 1, 7, 9-12, 19, 22 and 23 under § 103(a) over Johnson in view of Csicsatka. The applicant disagrees for at least the reasons that follow.

Regarding claim 1, the examiner alleged that Johnson disclosed a processor (item 21 in Fig. 3) configured to *encode the audio signal and the digitally encoded speech according to an FM standard*. In fact, Johnson says nothing about encoding *digitally encoded speech according to an FM standard*. In general, Johnson shows a digital audio player 10 designed for relaying a

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<sup>14</sup> Yang, column 6, lines 28-33.

<sup>15</sup> Yang, column 6, lines 33-37.

<sup>16</sup> For example, Yang's pager or receiver is configured to receive the audio signal as digital compressed audio, not as analog audio, on a SCA 67kHz or 92kHz subcarrier, not with, for example, the L-R audio component on a 37kHz carrier. See Yang, column 6, lines 57-58, and column 5, lines 50-51.

<sup>17</sup> In Yang, after the caller speaks his voice message and this message is transferred to the computer, the analog voice message is acted upon by a digital signal processor (DSP) to produce a digital, compressed signal (column 6, lines 36-44). However, this describes processing only of an audio signal, not text data.

digitally encoded stream of audio to an FM receiver such as mobile FM receiver 20.<sup>18</sup> The player may include a microphone 23a, which microphone may be used by the player to monitor the audio output of the FM receiver, so as to allow monitoring of transmission interference and seeking of a better channel.<sup>19</sup> That is to say, the microphone is used to enable autoscanning whereby the player scans through all the channels and then tunes to the channel providing the lowest interference.<sup>20</sup> Correspondingly, one of the functions of Johnson's digital signal processor (DSP) 21 is to detect the energy strength for the autoscan feature.<sup>21</sup> Thus, it is incorrect to allege, as the examiner does, that the speech detected by microphone 23a (i.e., from the output of the external FM receiver) is then *encoded according to an FM standard*.<sup>22</sup> It may be noted that Csicsatka, which was also cited, likewise fails to show encoding of *digitally encoded speech according to an FM standard*. Accordingly, claim 1 contains subject matter that patentably defines over the combination of Johnson and Csicsatka. Claims 7 and 9-12, which depend from claim 1, likewise patentably define over this proposed combination.

Concerning claim 19, the examiner alleged that Johnson shows a processor 21 *configured to receive an audio signal and text data providing ancillary information descriptive of the audio signal from the storage device and configured to generate a modulated text data signal including speech encoding of the text data*. The applicant would initially note that DSP 21 does not, as the examiner alleged, receive an *audio signal* from microphone 23a that is, as further recited, converted into an FM signal after first being combined with the modulated text data.<sup>23</sup> The applicant would further note that the *text data* on display 26, which is the display of the FM receiver external to the player 10, does not provide ancillary information descriptive of the audio signal because the FM encoding operation performed by DSP 21 only uses a 38kHz subcarrier (to modulate the L-R audio component) and no subcarrier is provided for separately encoding the

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<sup>18</sup> Johnson, figure 1, column 1, lines 4-7 and column 5, lines 20-22. The FM receiver may be a vehicle radio. See column 5, lines 47-50.

<sup>19</sup> Johnson, column 2, lines 35-39.

<sup>20</sup> Johnson, column 12, lines 33-42.

<sup>21</sup> Johnson, column 5, line 66 to column 6, line 1.

<sup>22</sup> Johnson's player does not transmit speech to an FM receiver and then monitor the speech output of the FM receiver, via the microphone, so that it can retransmit this same speech, after FM encoding, back to the receiver. This unreasonably presumes an infinite feedback operation. Instead, the receiver's output is monitored only to determine the optimal FM transmit frequency.

<sup>23</sup> See discussion above of claim 1, in particular footnote 21 and its related text.

text data.<sup>24</sup> Possibly, the examiner intended to refer to line-in-jack 23, which does provide digital audio medium from an outside source.<sup>25</sup> It appears this source may include a CD player<sup>26</sup> so as to enable, for example, loading of MP3 files into storage 35.<sup>27</sup> Even so and even if, as the examiner proposed, these MP3 files are altered in the manner of Csicsatka to include “audio tags” generated using text-to-speech conversion of ID3 textual data,<sup>28</sup> the DSP 21 would receive three different types of data: the audio data, the MP3 textual ID3 data, and the added “audio tag” data.<sup>29</sup> This is not the same, however, as the operation recited in amended claim 19 wherein the audio player's processor is configured *to receive an audio signal and text data* and further configured *to generate from the received text data a modulated text data signal including speech encoding of the text data* (that is, the recited processor self generates the speech encoded text data instead of merely receiving text data that has already been speech encoded). Accordingly, amended claim 19 patentably defines over the combination of Johnson and Csicsatka. Claims 22 and 23, which depend from claim 19, likewise define patentably over the proposed combination.

#### Johnson, Csicsatka, and Erben

The examiner rejected claim 4 under § 103(a) over Johnson in view of Csicsatka and Erben. The applicant disagrees at least for the reasons that follow.

The examiner alleged that Erben disclosed *a band-pass filter configured to filter the analog FM signal to exclude signal components outside a range of frequencies*. Although the examiner failed to identify this band-pass filter with particularity, it appears that the examiner is referring to the band-pass filter 22.<sup>30</sup> The band-pass filter 22 takes its input, via a connection 22, from an analog-to-digital converter 6,<sup>31</sup> and thus filter 22 is not filtering, as recited, an *analog FM signal*. Also, reading claim 4 together with claim 1, the recited band-pass filter is included

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<sup>24</sup> See Johnson, column 5, lines 64-65, column 8, lines 51-53, column 9, lines 9-12, and 56-59, and column 10, lines 8-9. Instead of modulating and transmitting the text data, Johnson feeds the text data directly to the player's (not the FM receiver's) display 12. See Figs. 1 and 2.

<sup>25</sup> Johnson, column 6, lines 5-6.

<sup>26</sup> Johnson, column 9, lines 56-59.

<sup>27</sup> Johnson, column 6, lines 39-44 and column 9, lines 45-49.

<sup>28</sup> See Csicsatka, paragraph [0054], first four sentences.

<sup>29</sup> Csicsatka teaches that the audio tags are added by the same software that originally encodes the audio data in MP3 format. This means the audio tags are added *before* the audio files are transferred to the player. See Csicsatka, the first sentences of paragraphs [0052] and [0053].

<sup>30</sup> Erben, figure 2.

<sup>31</sup> Erben, column 4, lines 29-34.

in an FM transmitter, whereas Erben only shows a band-pass filter included in a radio receiver.<sup>32</sup> Accordingly, claim 4 patentably defines over the proposed combination of Johnson, Csicsatka, and Erben.

Johnson, Csicsatka, and Anderson

The examiner rejected claims 6-8 and 24 under § 103(a) over Johnson in view of Csicsatka and Anderson. The applicant disagrees at least for the reasons that follow.

The examiner alleged that Anderson teaches an FM transmitter wherein the processor 23 includes *a signal combiner configured to time-division multiplex the digitally encoded speech and the audio signal*. This is not so. In general, Anderson describes a hearing aid having a microphone for picking up sounds.<sup>33</sup> These sounds are sent for audio enhancement to a remote processor unit (RPU), which may be concealed under clothing, over a two-way wireless link 17.<sup>34</sup> Anderson mentions time-division multiplexing for avoiding “collisions” between RPU interrogators sharing one frequency band and earpiece transponders sharing another frequency band,<sup>35</sup> that is to say, in Anderson, time-division multiplexing techniques are used to control access to the shared transmission medium and not, as recited, to multiplex digitally encoded speech and the audio signal. For certain applications, Anderson provides a secondary link 29 that may be used to exchange both digital data and speech signals between the RPU and a remote-site computer.<sup>36</sup> In this manner, electronic mail and faxes may be received for processing by the RPU to utilize text-to-speech conversion, en masse if you will, of the mail and faxes.<sup>37</sup> However, Anderson mentions nothing about providing, as recited, *a signal combiner configured to time-division multiplex the digitally encoded speech and the audio signal*. Accordingly, dependent claims 6-8 and 24 patentably define over the proposed combination of Johnson, Csicsatka, and Anderson even separately of their respective independent claim.

The applicant would point out that the particular portions of Anderson cited by the examiner make no mention of a *signal combiner*. Thus, if the examiner intends to rely on Anderson in the future, the applicant would request that the examiner identify, with particularity,

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<sup>32</sup> Erben, column 1, lines 36-38; column 3, line 15; column 4, line 29; and column 5, line 66.

<sup>33</sup> Anderson, abstract.

<sup>34</sup> Id.

<sup>35</sup> Anderson, column 13, lines 23-30.

<sup>36</sup> Anderson, column 26, lines 30-34.

<sup>37</sup> Anderson, column 26, lines 27-34.

which component of Anderson is supposed to represent the recited signal combiner. Furthermore, the applicant would request clarification concerning the examiner's purported motivation for combining Johnson, Csicsatka, and Anderson, which is "so that the transmission frequencies undergo a hopping sequence for increasing the power at which the signals are transmitting." The applicant does not find the examiner's referenced "hopping sequence" anywhere in Anderson. Absent such clarification, the applicant disagrees that there would have existed sufficient motivation for one of reasonable skill in the art to combine Anderson with these other references.

Yang in various combinations with Lee, Johnson, Csicsatka, and Anderson

The examiner rejected claim 14 under § 103(a) over Yang in view of Lee. The examiner rejected claim 15 under § 103(a) over Yang in view of Johnson and Csicsatka. The examiner rejected claim 16 under § 103(a) over Yang in view of Johnson, Csicsatka, and Anderson. The applicant disagrees at least for the reasons that follow.

Claims 14-16, including claims 15-16 as revised, each depend from independent claim 13.<sup>38</sup> As will be evident from the above remarks discussing rejections under §102, Yang does not show, as recited in amended claim 13, a *transceiver* comprising an RDS modulator *configured to generate a modulated text data signal modulated as a digital RDS signal using a digitized 57kHz subcarrier*. The same may be said about Lee, Johnson, Csicsatka, and Anderson, each of which lack an RDS modulator, let alone an RDS modulator that is configured as recited. Accordingly, claims 14-16 similarly define patentably over these proposed combinations.

It may be mentioned here that new claims 26-30 also depend from claim 13 and likewise patentably define over all the art previously cited against claim 13 or its related claims.<sup>39</sup> This includes Marcos Alba, Yang, Lee, Johnson, Csicsatka, and Anderson. These new claims introduce further defining elements for distinguishing over the art of record.

The examiner rejected claim 25 under § 103(a) over Yang in view of Lee and Johnson. The applicant disagrees at least for the reasons that follow.

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<sup>38</sup> Revised claims 15 and 16 find full support in applicant's original specification. For example, for claim 15, see applicant's figure 2 and paragraphs [0032]-[0033]. For claim 16, see applicant's figures 3 and 5A.

Claim 25 depends from independent claim 19. Claim 19 recites a *handheld audio player* comprising, inter alia, *a processor configured to receive an audio signal and text data providing ancillary information descriptive of the audio signal* and further configured *to generate a modulated text data signal including speech encoding of the text data*. As will be clear from the above remarks discussing rejections under §102, Yang does not show each of these recited elements. The same may be said about Lee and Johnson, neither of which shows a processor configured *to generate the recited modulated text data signal including speech encoding of the text data*. Thus claim 25 similarly defines patentably over the combination of Yang, Lee, and Johnson.

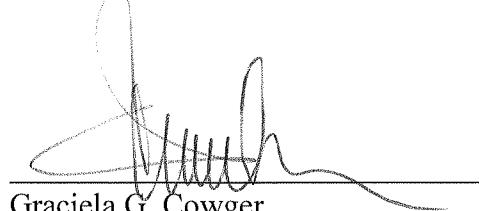
### Conclusion

In view of the foregoing, the applicant submits that claims 1, 4, 6-17, 19, and 22-30 are in condition for allowance. The applicant encourages the examiner to call if a conference would advance prosecution.

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Respectfully submitted,

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<sup>39</sup> The new claims are fully supported in applicant's original specification. For example, for claim 26, see paragraphs [0002] and [0022]; for claim 27, see paragraph [0027]; for claim 28, see paragraph [0031]; for claim 29, see paragraphs [0002] and [0007]; and for claim 30, see paragraph [0023].